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AUTHOR Stilwell, William E.; Barclay, James R.
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ABSTRACT

This report describes the effects of a 2-year affective-social education program offered by the elementary guidance services of the Stuttgart School District in Arkansas. Four groups of children (a total of 105 boys and 116 girls) were identified for this evaluation: Group I, involved in the program for two full years; Group II, participating one year only; Group III, participating in a 12-week pre-program pilot only; and Group IV, not involved in any program. The primary assessment technique was the Barclay Classroom Climate Inventory (BCCI). Data from self-report, peer nominations, and teacher ratings were analyzed by gender and by group. Gender differences were noted. The children in Group I made numerous significant gains in comparison with Groups II, III and IV. Group II and III children made about the same number of gains but in different BCCI areas. More than a third of the report consists of tables presenting study data. (Author/BF)

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EFFECTS OF AN AFFECTIVE-SOCIAL EDUCATION PROGRAM OVER TWO YEARS

William E. Stilwell
University of Kentucky

and

James R. Barclay
University of Kentucky

The affective-social education program offered by the expanded guidance services of Stuttgart School District No 22 (Arkansas) has been available to students, teachers and parents for two full academic years. Four district groups of children (105 boys and 116 girls) have been identified for this evaluation: Group I, involved in program for two full years; Group II, participated in program only during 1976-1977; Group III, 12-week pre program pilot only; and, Group IV, no program. The primary assessment technique was the Barclay Classroom Climate Inventory (BCCI). Data from self-report, peer nominations, and teacher ratings were analyzed by gender and by group. Gender differences were noted. The children in Group I made numerous significant gains in comparison with Groups II, III and IV. Groups II and III children made about the same number of gains but in different BCCI areas.

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Affective education's time has arrived! In its many various forms teachers, counselors, principals, parents and students are becoming involved in programs which are designed to bring about changes in their affective-social skills. While many of these programs are uncoordinated, the affective-social education program in Stuttgart, Arkansas, stands as an example or model project (Stilwell, 1977). The program development and its implementations are worthy of emulation by school districts who desire to bring positive changes to their elementary and middle schools.

The purpose of this report is to describe the effects of the affective education program provided by the extended elementary guidance services of the Stuttgart School District No. 22. This report is one of a series prepared for the District's ESEA Title III Program Director (Stilwell & Barclay, 1977a; 1977b).

The format of the report reflects the evaluation design for the program. For about 12 weeks beginning in February 1975 students and teachers at Buerkle school participated in a training program: Roger Aubrey brought the "Magic Circle" model to Stuttgart and demonstrated how it could be integrated with DUSO and with Focus on Self-Development; Edmund Barnett trained the K-4 teachers at Buerkle in human relations skills during this 12-week period. An assessment in May 1975 revealed that the Buerkle children had gained sufficiently on the Barclay Classroom Climate Inventory (BCCI) to have a new parity with "control" children from Julia Shannon (Stilwell & Barclay, 1977b).

The program was continued only at Buerkle school for 1975-1976. The analysis of that school year's program results showed that major and desireable differences in terms of self-competences, group support, teacher judgment, and attitude toward school (Stilwell & Barclay, 1977b).

In 1976-1977 the students who had participated in the program at Buerkle moved on to Holman for their fifth grade level. Teachers from Buerkle were involved in the in-service training of teachers at the receiving school. This horizontal spreading of affective, social education skills is precisely an appropriate use of the learning development consultant team model (Stilwell & Santoro, 1976). Indeed, it can be viewed as an implementation of a peer-tutoring model.

The present report attempts to evaluate the effects of the expanded guidance services over the period from February 1975 to May 1977. In so doing we will look at data obtained from four groups of students and teachers. This data will allow us to contrast groups of boys and girls on three occasions and to compare the four groups for differented gains over time.

The Students

Earlier we described the assessment schedules. From this schedule the Program Director was able to define four distinct groups of boys and girls. These four groups became our subjects for this report.

Group I: This group of children has participated in the affective-social education program from February 1975 to the present (May, 1977). Presently these boys and girls are finishing their fifth grade level at Holman School. Thus after the 12-week pilot program and one full academic year (1975-1976) as Buerkle they transferred on to Holman. Selected Buerkle teachers conducted the in-service training in "The Circle", an amalgam of Magic Circle, DUSO, and Focus on Self-Development. A total of 28 boys and 15 girls participated in Group I.

Group II: This group of 32 boys and 27 girls enjoyed only one year (1976-1977) in the affective social education program. After completing 1975-1976 enrolled at the "control school", Julia Shannon, the students entered Holman for their fifth grade. Thus, these students participated in the affective social education program for one year in a new school. Again the Buerkle teachers provided the in-service training for the Holman teachers involved with this group of children.

Group III: The pilot program (February to May 1975) was the only affective education program experience for these 20 boys and 29 girls. After completing their fourth grade at Buerkle they went on to the Middle School. In this sense the girls and boys of Group III became the second active-control group (Group II is the first).

Group IV: This group of 25 boys and 45 girls did not have any experiences in the affective education program of the District's expanded guidance services. These children's data provided the control information for the complete program evaluation.

The Design of the Study

The Program Director effectively managed the program so the following evaluation design was used (Figure 1). The data collected from these four assessments with the BCCI provided the essestial information for this study. The usefulness of the BCCI has been described elsewhere (Barclay, 1974, 1977; Stilwell, 1977). Selected BCCI Scale Scores were used for this report.

Figure 1: Affective Education Program

Schedule for Assessment with

the BCCI

Group I								
	28 boys	X	Pilot	X	Program	X	Program	X
	15 girls	X	Pilot	X	Program	X	Program	X
Group II								
	32 boys			X		X	Program	X
	27 girls			X		X	Program	X
Group III								
	20 boys	X	Pilot	X				X
	29 girls	X	Pilot	X				X
Group IV								
	25 boys			X				X
	45 girls			X				X
		February 75		May 75		May 76		May 77

Data Analyses

The data analyses for this report was completed in several stages. First, we examined the differences among the four groups on the three May assessments. The results are presented in Table 1 for boys and in Table 2 for girls. These data were suitable for graphing which we did in figures 2 through 7. Second, we used an analyses of covariance fixed effects model with a multiple classification analysis to examine differences between the four groups on the May 1975 to May 1977 BCCI assessments. These results are presented in Table 3. These results suggested further analyses among the four groups which are reported in Tables 4 through 9. Next, we looked at differences between children who had been involved continuously in the program (Group I) and children who had been in an affective-social education program for only one year (Group I). The results are presented in Table 10. Lastly we compared the two groups of children who had participated in the original pilot program (Group I and Group 3), but who had had different educational programs (Table 11). A summary of these results is presented in Table 12. The findings from this evaluation project do have implications for affective education in Stuttgart, in Arkansas, and across the country.

Results

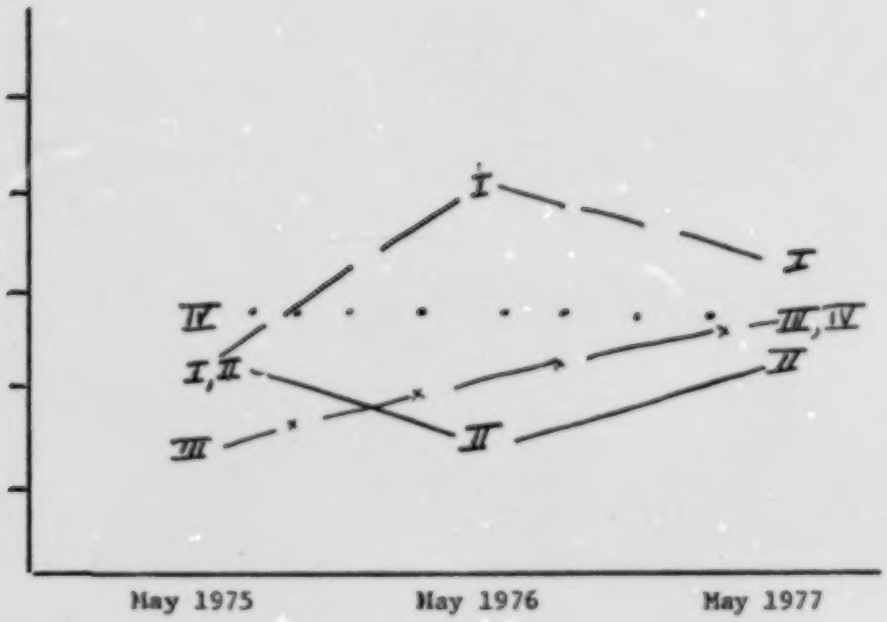
The results obtained from the series of analyses of covariance provide information which can be helpful in educational decision-making. In addition to the major imparisons among the four groups over the two year period, we have completed additional comparisons between pairs of the four groups. These refined analyses will help develop information which can have budget

and program implications. On the one hand we can expect to find differences between boys and girls on many of the BCCI scale scores. Our expectation is based upon the long term development of "boy and girl behavior and interest patterns" which are difficult to change, even in today's climate. On the other hand, we will look with interest at the comparisons between the groups in terms of changes in BCCI scores. The direction of these changes will be extermely important since low scores are desireable in some scales (e.g., TR-) and high scores are desirable on some other scales (CCI). Of course, the absence of a significant difference between groups must be cautiously interpreted: positive gains might have equally occurred for all children; reduced scores might have occurred also at the "same" rate; shifts within the four groups might occur, but not in such a degree that the difference was significant statistically. Lastly, the significant groups differences on a single BCCI Scale must be carefully interpreted to grasp the "best" meaning.

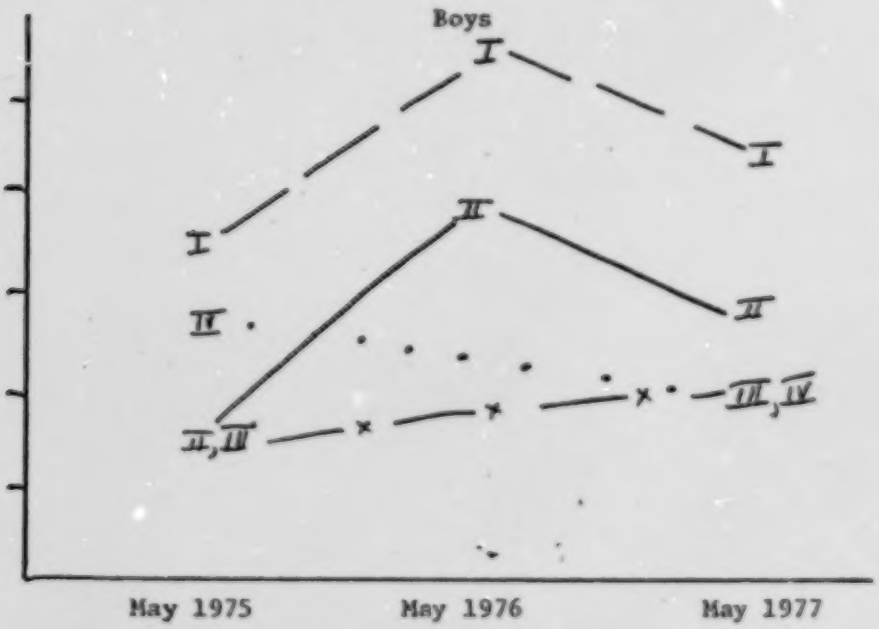
Differences Among the Four Groups at Three Times

The 221 children were assessed in February 1975, May 1975, May 1976, and May 1977. Earlier we said that the pilot program facilitated Group I (Buerkle) students' reaching an affective parity with the Shannon (control) students (Stilwell & Barclay, 1977a). In Table 1 we present the boys' mean scores for each group at the three May assessments. Table 2 presents the same kinds of information for girls. The results are interesting and suggest an ebb and flow of change which might be developmental or programmatic in nature. The means for selected groups have been plotted in displayed in Figures 2 through 7. In Figure 2 we show the ebb and flow of self-competency (STOT) as it develops under differing environments. The

Figure 2 Plot of the Means for a Selected BCCI Variable for Boys and Girls



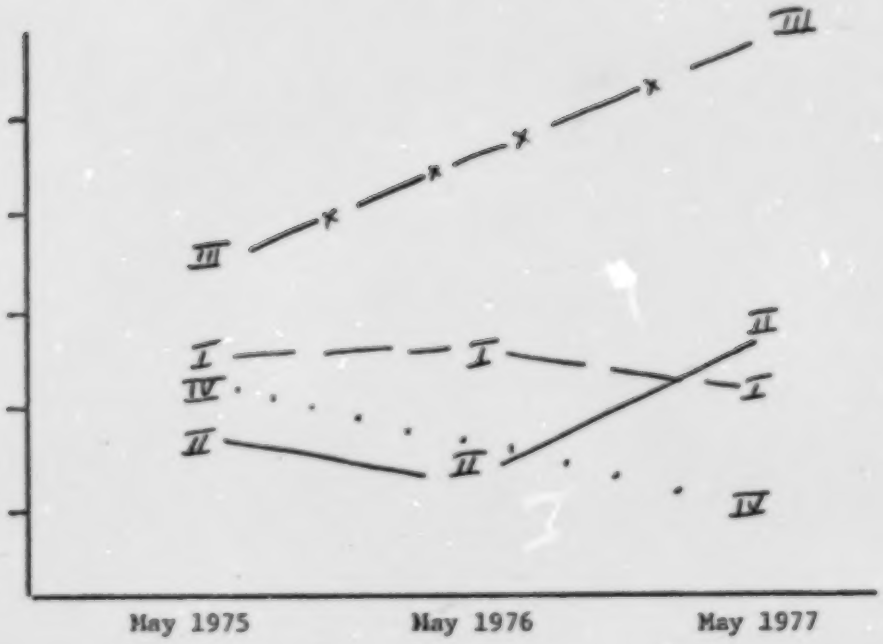
Boys



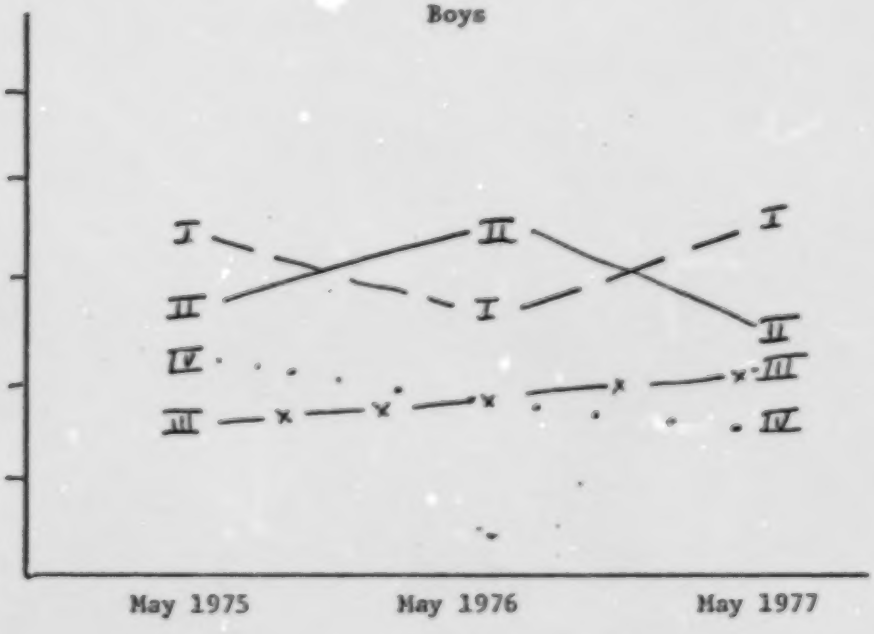
Girls

STOT

Figure 3 Plot of the Means for a Selected BCCI Variable for Boys and Girls



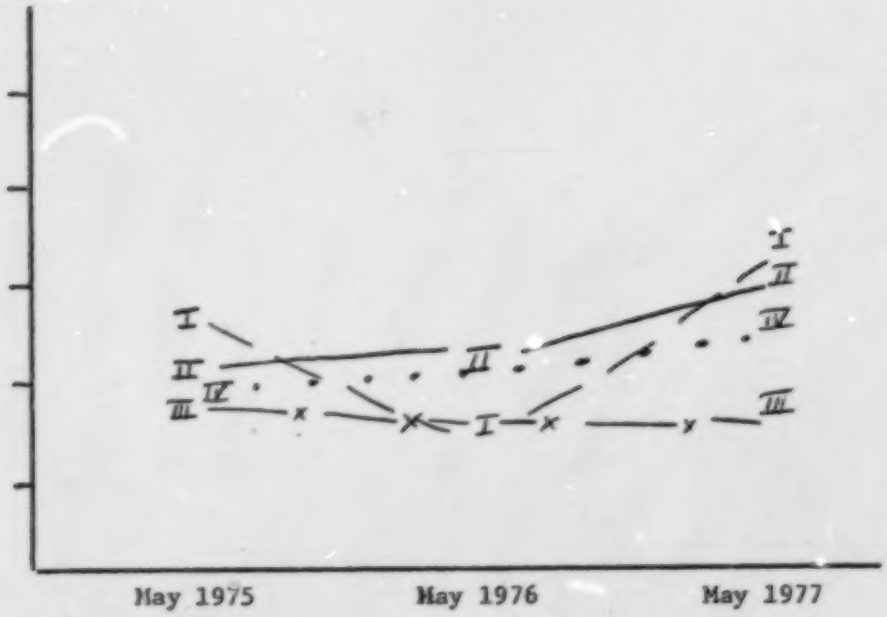
Boys



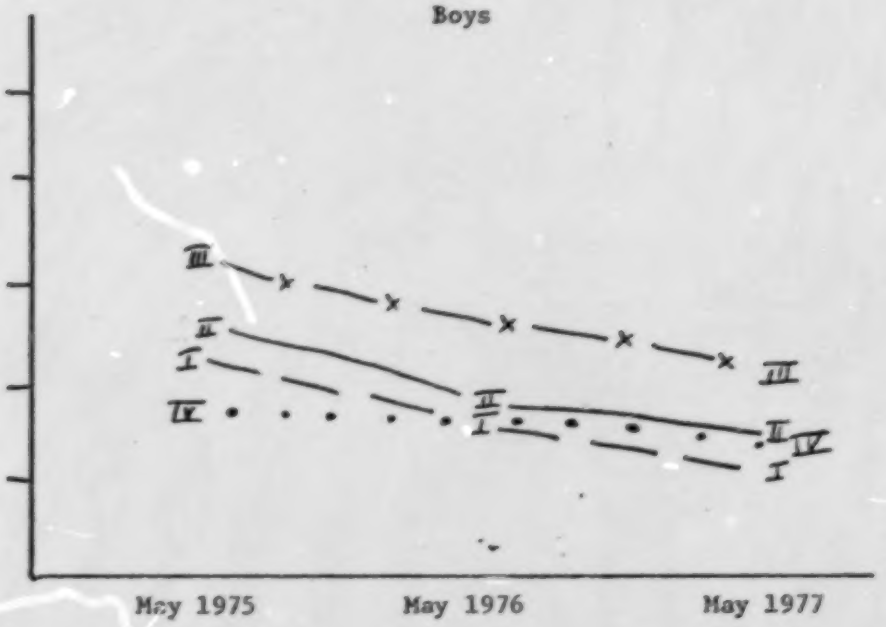
Girls

GRM

Figure 4 Plot of the Means for a Selected BCCI Variable for Boys and Girls



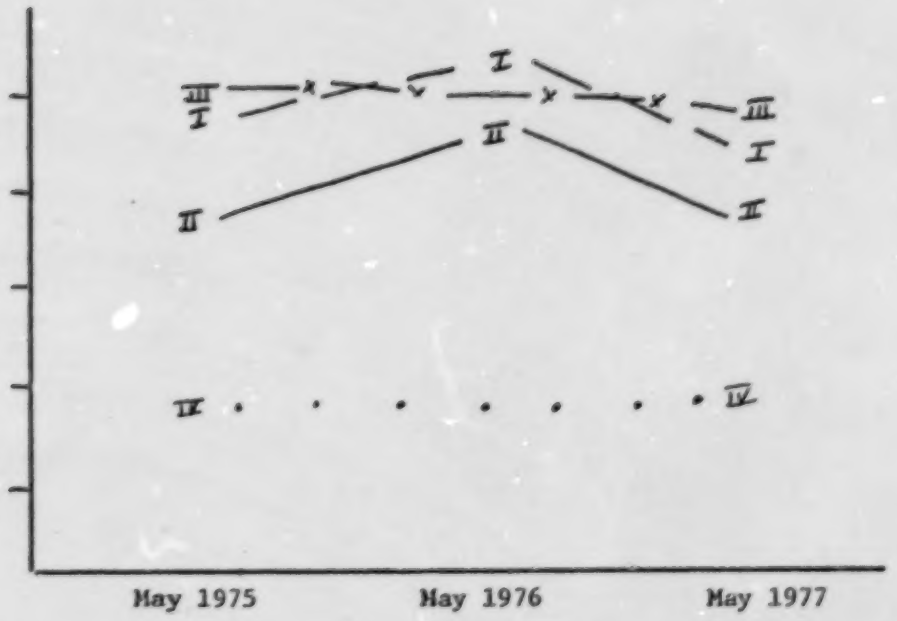
Boys



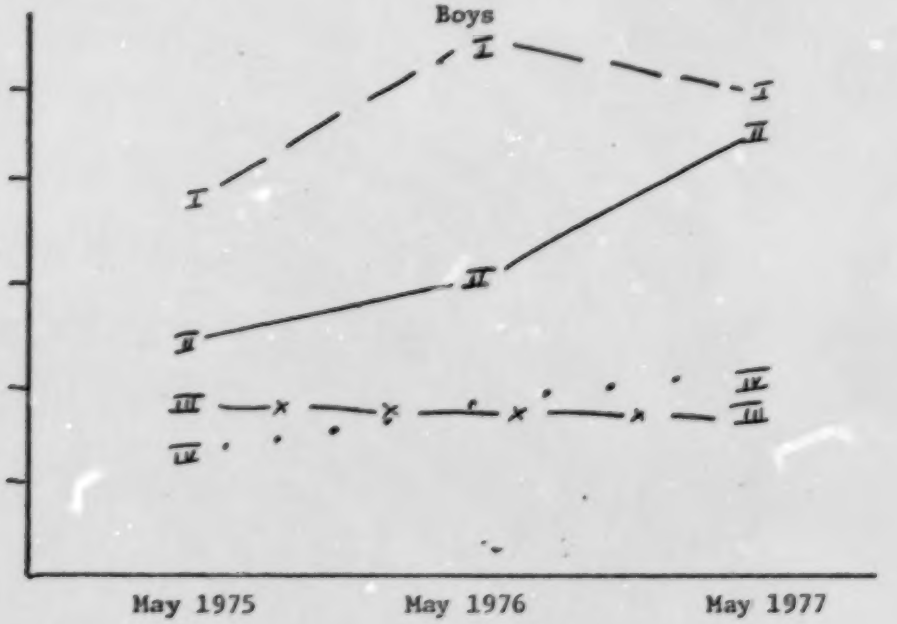
Girls

GR

Figure 5 Plot of the Means for a Selected BCCI Variable for Boys and Girls



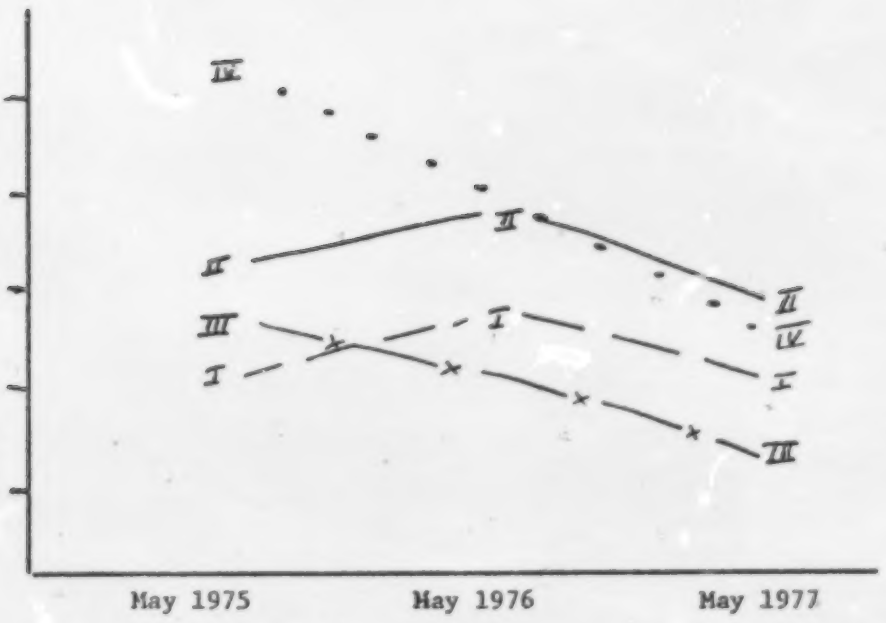
Boys



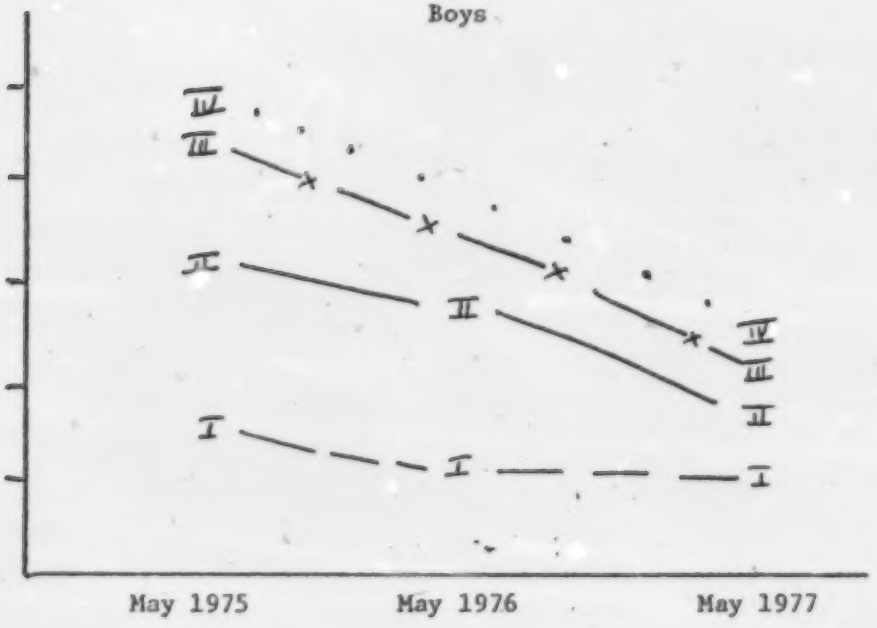
Girls

TR+

Figure 6 Plot of the Means for a Selected BCCI Variable for Boys and Girls



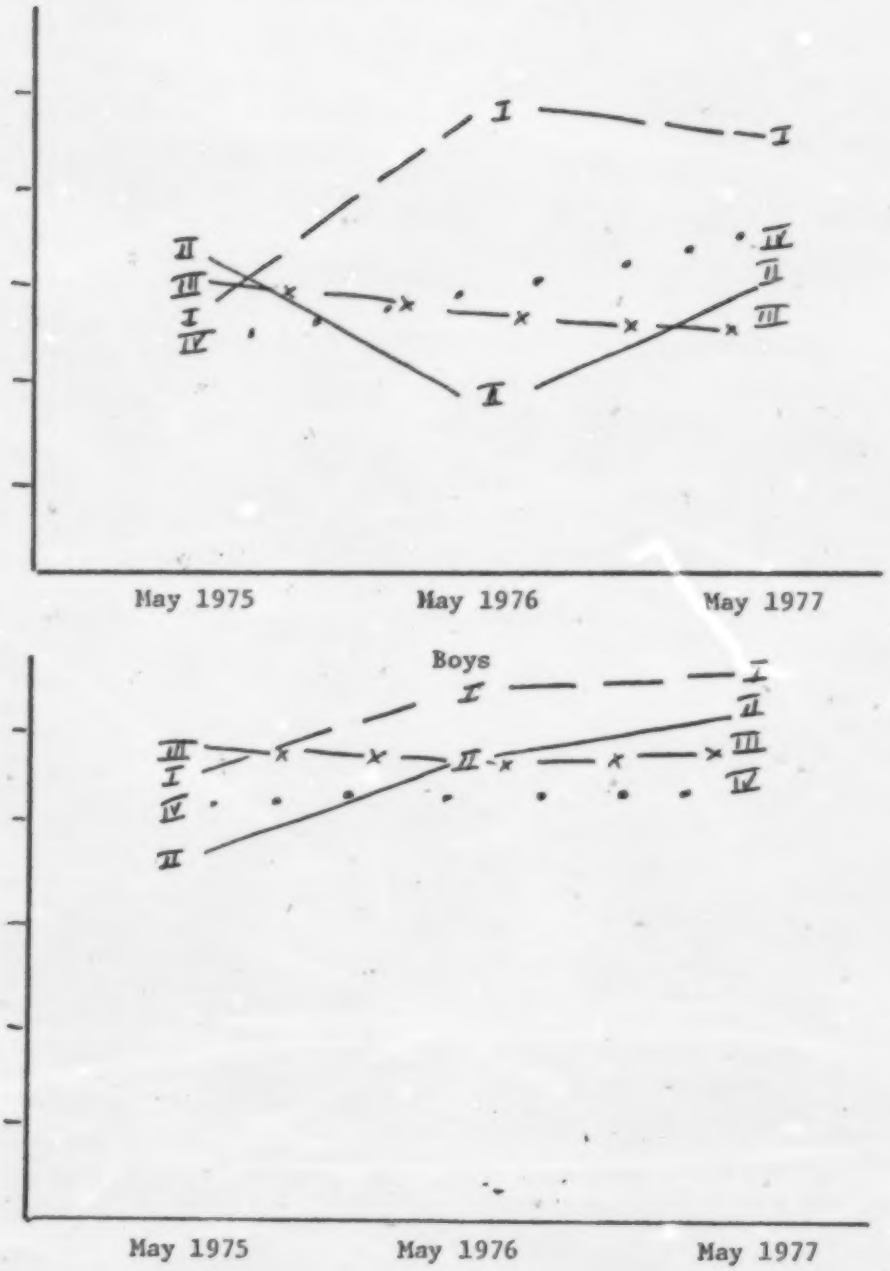
Boys



Girls

TR —

Figure 7 Plot of the Means for a Selected BCCI Variable for Boys and Girls



pattern for boys suggests that the greatest differences occurred in May 1976 but that by May 1977 the differences had been reduced. In other data sets Barclay (1974) has reported that self-competency declines over time. It is encouraging that these children were able to hold their own. In Figure 3 we display the interaction which has been analyzed in Table 3 through 9. The display of means shows that Group III boys became more and more realistic -masculine over time. The cross-over of the lines connecting the means for both boys and girls display the interaction. Probably the best interpretation of these means is that we are seeing developmental differences among boys and among girls. The fact that these children entered different schools and different teachers, classmates and overall environments probably contributed greatly to these patterns. Figure 4 shows diamatically that fewer and fewer girls are viewed by their peers as shy and reticent. The character of these reticent children and how they have succeeded in Stuttgart has been discussed elsewhere (Stilwell & Barclay, 1977b). In contrast the Group I boys appeared to have become more reticent. The district staff can provide some insights into this pattern. In Figure 5 we can see the benefit of teacher involvement in the affective-education program: Group IV children received almost consistently fewer positive teacher ratings while the Group I children appeared to benefit from extensive teacher support. <u>This pattern is exciting and should be continued as much as possible</u>! In Figure 6 a highly desireable overall pattern has developed: usually the children received fewer and fewer negative teacher ratings. We can see again the benefit of teacher involvement in "The Circle". Lastly in Figure 7 we find an unuaual pattern: children appear to maintain a positive attitude toward school. In other data sets Barclay, (1974), has found that school becomes less and less

popular: accordingly all the Stuttgart teachers should feel a sense of pride.

Differences Among Four Groups Over Two Years

In this analysis 105 boys and 116 girls provided complete data for the four groups. An analysis of covariance with fixed effects and a multiple classification analysis of main effects was used. The significant results from the overall four groups analysis in which May 1975 scores covary with the May 1977 scores are displayed in Table 3.

The differences between boys and girls reveal two fairly distinct patterns. Boys were found to be more realistic-masculine (GRM) in the eyes of their classmates than girls in the four groups. Similairly boys had more interests in realistic-outdoors career activities (REAL) than girls in the groups. For some reason, the 105 boys in the study were more often assigned negative teacher ratings (TR-)! Meanwhile, the girls were judged to be more artistic or intellectual (GAI) and more Social (GSC) than the boys. Also the girls had greater interest in people-oriented careers (SOC) and in careers in general (VTOT) than did their male classmates. The girls seemed to be valued more highly by their teachers (TR+) and to have a more positive attitude toward school (CCI) than were their male counterparts. This pattern is similar to the gender differences reported earlier (Stilwell & Barclay, 1977b).

The differences among the four groups reveal patterns which are important and which must be further explained by District personnel. First, the four groups were significantly different on the peer nominations of artistic-intellectual differences (GAI). The students in Group I were viewed by their peers as more interested and more fascile in artistic and

intellectual skills than the other three groups. Subsequent analyses (See Tables 4 through 9) reveal the character of the difference. That is, Group I children seemed to score higher than did Group II or Group IV children on this scale. Second, the children in the four groups appeared to be different statistically in terms of their realistic-masculine (CRM) behaviors and interests. In this comparison the boys and girls who participated in only the 12-week pilot program and no other affective-social educational experiences scored higher than the other children in the study. Again the more precise pattern of differences is demonstrated in Tables 4 through 9. (This pattern is very mixed such that several significant gender by group interactions were obtained. Unique interpretations, rather than a single summary statement, are more appropriate for this pattern of results.) Third, the children who participated in the affective social-education program at Holman for only one year appeared to receive the most positive teacher ratings. The subsequent series of analyses (Tables 4 through 9) suggest that the program was better than no program (Table 6) and that Holman's children receive more positive ratings than did either the Group III (pilot) or the Group IV (control) children. Lastly, the children who had been involved in the program throughout the pilot and the two program years appeared to have a more positive attitude toward school (CCI) than did their fellow students in the other groups. The pattern obtained from the subsequent analyses (Tables 4 through 9) show that Group I children consistently scored higher than did Groups II, III or IV children. Indeed even the Group II (Holman fifth graders) scored higher than did the Group III students (Table 8). An interesting pattern frequently appears: something "good" was happening at Holman. The exact nature of this "goodness" can be revealed by the District personnel: it could be the teacher-to-teacher in-service training program

provided by the Buerkle teachers.

To this point we can say that the differences between the boys and girls were anticipated. The degree or breadth (nine BCCI scale scores) is greater than that which was reported earlier (Stilwell & Barclay, 1977b). This breadth might be a question of maturatism or of the accumulated effects of schooling both in and out of the program. The answer is difficult to pin-point. Also we can recognize that some differences were obtained in terms of the classroom teachers' positive judgements of the full program and of the one year program students and that these children did appear to have a more positive attitude toward school. Let's look further at differences between specific groups during the period May 1975 to May 1977.

Differences Over Two Years for Groups I and II

An analysis of covariance for Groups I and II over the two year period (May 75 to May 77) was performed (Table 4). The pattern of differences between 60 boys and 42 girls closely resembled the differences for the full sample of 221 children. This pattern was therefore, anticipated from the previous analysis. Girls seem to get the more praise and fewer negative ratings from teachers, to have a more positive attitude toward school, and to enjoy the "typical" girl interests and peer support. Boys are also typical. The District can consider whether it wants to maintain or to change this pattern.

The two significant comparisons between the groups showed that the full program children (Group I) were judged by their peers to be more artistic and intellectual (GAI) and to enjoy school more (CCI). The GAI comparison is interesting: possibly the Group I children are benefitting from an accumulated effect of the affective education program. As we stated earlier

in this report the differences between Group I children and other children in CCI usually favored the Group I children. Thus, this difference was not unanticipated.

Differences Over Two Years for Groups I and III

Again the pattern of differences between boys and girls is very similar to the results obtained from the overall program analysis (Table 3). In Table 5 the new BCCI variable with a significent difference was STOT. In the differences between groups the data show that Group I children appeared to have better developed self-competency and a more positive attitude toward school than did their Group III (pilot only) friends. The unanticipated finding was that the Group III children seemed to have more peer support in the area of realistic-masculine or outdoor interests and skills than did their counterpails in Group I. A speculation is that the new school environment (principal, teacher or locale) supported the development of these interests and behaviors. Again the District personnel can amplify on this interpretation.

Differences Over Two Years for Groups I and IV

In this comparison of the full program children with the no-program children we would anticipate finding the greatest number of significant and meaningful contrasts. Indeed 11 such differences were obtained (five between boys and girls and six between groups). The differences between boys and girls were similar to the more extended differences reported for the overall comparison of four groups (Table 3). In Table 6 the between sex differences appear to be accentuated (e.g., GAI, REAL, SOC, TR+, TR-). The differences between groups are more dramatic and more important for the children involved

in this model program. In self-competency, peer support, teacher judgment, and attitude toward school meaningful and significant differences were found: self-competency (STOT), peer support for artistic-intellectual (GAI), realistic-masculine (GRM) and overall activities (GTOT), teacher positive judgments (TR+) and attitude toward school (CCI) dramatically favored the full program effort undertaken by Group I students. This pattern of findings emphasizes that a full program does produce measureable and desireable changes by the students and teachers who are participating in affective education.

Differences Over Two Years for Groups II and III

The results for this comparison are presented in Table 7. The pattern of differences for boys and girls continues to reveal that boys will be boys and girls will be girls. The contrast between one full program year (Group II) and 12-week pilot (Group III) is somewhat surprising: only one difference (TR+) was obtained. It seems that what happened to produce the climate and enthusiasm during the pilot program was captured again for those who were involved in the preparation of Holman teachers. Thus, the twelve-week program and the one year program appeared to have comparable results. Of course, we must keep in mind that differences between groups did occur, but that these differences failed to reach conventional levels of significance. Further, and this must be emphasized, the effect of the program appears to be accumulative so it should be continued over several school years (Table 6 results) to have its fullest effect.

Differences Over Two Years for Groups II and IV

In this comparison the one year program at Holman was contrasted with

no-program. The results are displayed in Table 8. Again the differences between boys and girls were found. The contrasts between groups revealed two important differences: Group II children obtained more peer support for realistic-masculine activities (GRM) and more teacher support (TR+) than did children who had not been in the program. The group enterprising (GE) gender by-group interaction showed that the girls and boys obtained different scores over the two year period in such a manner that their means crossed (Table 1 and 2). In some group-mented program we have observed GE scores increasing for girls, but not for boys; such was not the case among these 221 children (Tables 1 and 2).

Differences Over Two Years for Groups III and IV

The results from this analysis of covariance are presented in Table 9. The new BCCI scale score to be identified as significantly different was peer nominations of disruptiveness (GD). Boys were viewed by their peers as more disruptive than girls. Otherwise the pattern of differences between boys and girls is similar to the ones which we have obtained throughout this report. In this comparison we found that the pilot-only children (Group III) obtained more peer support for realistic-masculine and for social-conventional (GSC) activities than did their friends in Group IV. This difference, and the difference favoring the realistic-outdoor career interests (REAL) of the control group can be best interpreted by District personnel. This pattern of differences between groups seems to suggest that the pilot program did bring about a few changes in contrast with the control, but that this pattern was not as solid nor as dramatic as the differences obtained from the full program children's scores.

Differences Between Groups for One Year

The only available contrast between groups was for the differences between Group I and Group II in their May 1976 BCCI assessment (Table 10). By now the pattern of results is familiar such that sex differences were again observed. The only between group difference showed that the Group II children seemed to develop a stronger peer support system for artistic and intellectual behaviors and interests than did their friends from Buerkle (Group I). In the analysis of the 1975 to 1977 period the pattern was reversed so that Group I children had the greater peer support in this area (Table 4). Possibly in this area the teacher-to-teacher in-service preparation on the Holman climate (principal, teachers, parents and locale) or the emphases upon academics rather than social development produced this kind of a difference. Again, the District personnel will be more able to interret this difference between the two groups on this BCCI scale score.

Differences Over Two and One-Half Years for Groups I and III

In February 1975 the twelve-week pilot program to prepare teachers and students for "The Circle" was started. These children were assessed with the BCCI in February and in May 1975. Earlier we discussed their gains during the 12-week program (Stilwell & Barclay, 1977a) and their progress over the two year (May 1975 to May 1977) period (Table 5). In this section we will present the February 1975 & May 1977 results (Table 11). As far as the differences between boys and girls is concerned we obtained our typical pattern (e.g., GAI, GRM, REAL, SOC, TR+, TR- and CCI). The differented effects between the two groups revealed differences for TR+ and CCI which favored the full-term program (Group I) over the 12-week pilot (Group III).

A significant difference which stands as an exception in the sense that usual differences favored Group I children showed that the Group III children had more peer support for realistic-masculine-outdoor interests and behaviors (GRM) than did Group I boys and girls.

Summary

The full two and one half year affective education program of the expanded guidance services in the Stuttgart School District produced changes which are displayed in Table 12. In this table we have attempted to put together all of the significant differences so that a number of summary statements can be made.

First, differences between boys and girls were found in every analysis. The children were different on as many as nine BCCI scales (Table 4) or on as few as five scales (Table 10). Essentially, the boys seemed to have more peer support for realistic masculine interests and behaviors, to be viewed by their peers as more disruptive (Table 9 only), to have more outdoor-masculine career interests and to receive more negative teacher ratings than their female classmates. The girls, on the other hand, enjoyed more peer support for artistic and intellectual behaviors and interests and for social and conventional (clerical) activities, to have more career awareness overall and for socially-oriented activities, to receive more positive teacher ratings, and to have a more positive attitude toward school than did their male classmates.

Second, differences between groups were obtained in every analysis. The groups were different in as few as one BCCI Scale Score (Tables 7 and 10) or on as many as six scales (Table 6). In simplicity it would be desireable for Group I to be consistently superior to each of the other groups III and

IV and for Group III to be more powerful than Group IV. Unfortunately, the display on Table 12 shows the directions of differences between groups that did not lend itself to this simple order! Indeed differences between groups were more apparent on some BCCI scales (e.g., GAI and GRM) than on some other scale (i.e., GR and GE). Indeed the absence of differences between groups might be viewed by the District as a highly desireable outcome. In any case, the question must be asked: What is to be considered by the ordering (e.g., changes in self-competences, changes in peer support systems, changes in teachers, changes in career awareness or changes in attitude toward school)? In some of these purposes, e.g., attitude toward school and positive teacher judgments the ordering is straight forward. However for the peer support measures the issue is not so clear. Thus the ordering of the four groups is truly a difficult undertaking.

Third, the students' scores on the self-competency measures of the BCCI produced only one significant difference, i.e., between Groups I and III. An interpretation of this result might be that the Group III children benefitted from the pilot program but subsequently lost ground in comparison with their friends who remained in the affective education program. This difference emphasizes the need for a continued program rather than one which is terminated.

Fourth, the BCCI peer support scores have produced a variety of different patterns. For four peer support measures (GAI, GRM, GSC and GTOT) it appears appropriate to say that either Group I, Group II or Group III children scored higher than their Group IV friends on at least one of these measures. On GAI the data approach an ordering, i.e., I > II > IV of the four groups. However for GRM we did not obtain such a simple sequence. On this measure each alternative form of the affective education program (full,

one year or 12- weeks) was superior to no program. In terms of peer support for social and clerical interests and behaviors we obtained only one set of differences (III > IV). The most salient peer support score (GTOT) considers the full range of support. On this score we found that the peer support in Group I was stronger than in the no-program group. We view this result as showing the affective education program promoted social-interaction skills and a respect for each student by each student.

Fifth, the teachers and students involved in the full two year plus 12-week program seemed to have something "special" going for them! These children earned more positive teacher ratings than did their friends in Group IV. In some way an interaction between students and teachers developed so the Group I teachers were able to communicate an enthusiasm to the Group II teachers and children. This enthusiasm is captured in the significant difference between Groups II and III. The evaluation data supports the flavor of the teacher-student and teacher-teacher interaction; it remains for the District personnel to press forward with this enthusiasm.

Sixth, in the attitude toward school measure we found that Group I children enjoyed school more than did either their friends in Group II, Group III or Group IV. The students in this group appeared to enjoy a maximum benefit of the affective education program - they liked school!

In summary we can develop an appreciation for the affective education program undertaken through the expanded guidance services of Stuttgart School District No. 22. This appreication is an accumulation of information, data and comparisons. Essentially the interests summarized in Table 12 reveal that Group I was the superior group in nine comparisons, Groups II and III were the superior group in four comparisons, and Group IV excelled in one comparison. One could develop an appreciation for mere results which says

fairly clearly affective-social education for students, teachers and parents has an accumulative effective in several different areas. For this reason, the more, on a continuous and on a continued basis, the better for the children involved in affective education.

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Table 1

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Males over three assessments (May 75, May 76 and May 77)[1]

Group	Variable Name									
		STOT			GAI			GRM		
	N	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77
I	28	14.1429	16.1429	15.6429	2.7143	2.5714	3.6071	5.6786	5.6071	5.2857
II	32	14.1563	13.5938	14.1875	2.2500	2.3125	2.2500	4.8125	4.5625	5.9688
III	20	13.6000		14.3000	4.0500		3.000	6.4500		9.0500
IV	35	14.7600		14.6800	2.1200		1,0400	5.2400		3.9200
$\bar{X}$	105	14.7238	14.7833	14.7143	2.6857	2.4333	2.4667	5.4571	5.0500	5.8857
SD		4.5309	3.6781	3.9363	3.3949	3.2800	3.2965	4.8279	4.4813	5.0580
F		1.516	8.027	.780	1.506	.092	3.072	. 501	.809	4.394
P		.2150	.0063	.5078	.2175	.7632	.0312	.6822	.3722	.0060

[1]Groups were identified as follows: Group I, participated in pilot and two years of the affective education program, now at Holman; Group II, participated in program for 1976-1977 at Holman; Group III, participated only in the 12-week pilot program at Buerkle, now at Middle School; Group IV, did not participate in the affective education program, now at Middle School, Groups I and II are fifth graders; Groups III and IV are sixth graders.

Table 1

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Males over three assessments (May 75, May 76 and May 77)

	Variable Name										
Group	GSC			GE			GR			GD	
	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76
I	5.3571	6.1786	6.1071	7.1071	6.9643	7.6786	2.8214	1.5714	3.1429	4.6429	3.5714
II	4.4375	4.0313	4.2188	5.0938	5.4688	6.7500	2.2188	2.4063	2.9063	2.7188	2.5000
III	6.0000		3.2500	8.4000		8.5500	1.9000		1.8000	4.3500	
IV	3.9200		3.0000	6.3200		4.2000	1.7200		2.4800	4.2400	
$\overline{X}$	4.8571	5.0333	4.6286	6.5524	6.1667	6.7333	2.2000	2.0167	2.6571	3.9048	3.0000
SD	3.9697	6.5561	4.7338	6.7667	6.3196	7.9230	1.9434	2.6005	2.7902	5.7755	4.0672
F	1.295	1.619	2.162	1.067	.834	1.349	1.653	1.553	1.032	.633	1.037
P	.2802	.2083	.0972	.3665	.3649	.2629	.1820	.2176	.3820	.5764	.3128

Table 1

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Males over three assessments (May 75, May 76 and May 77)

Group	Variable Name										
	GTOT			REAL			INT				
	May 77	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77	May 75
I	3.6786	20.8571	21.3214	22.6786	6.5714	6.4286	6.2857	5.0000	4.8571	4.5357	5.1786
II	2.7813	16.5938	16.3750	19.1875	5.500	4.8125	5.0938	4.5000	4.3125	4.000	5.000
III	3.2500	24.9000		25.8500	5.1000		4.4500	3.1000		4.0500	3.9500
IV	3.1600	17.6000		12.1600	5.6000		6.6800	3.6000		5.0400	4.3200
$\bar{X}$	3.2000	19.5524	18.6833	19.7143	5.7333	5.5667	5.6667	4.1524	4.5667	4.4000	4.6857
SD	4.1007	13.6923	16.2600	16.8618	3.2114	3.3210	3.0245	2.8209	2.7145	2.5138	3.0360
F	.235	1.810	1.391	3.021	.965	3.698	2.944	2.339	.597	.966	.869
P	.8719	.1500	.2430	.0332	.4125	.0594	.0366	.0779	.4428	.4120	.4597

Table 1

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Males over three assessments (May 75, May 76 and May 77)

	Variable Name										
Group	SOC			VTOT			TR+			TR-	
	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77
I	5.2143	4.0714	37.0714	36.0357	33.1429	19.1429	20.3214	16.7500	6.1071	7.3571	6.3571
II	4.1250	3.7500	33.5938	31.5938	30.7813	15.2813	17.5938	15.4375	8.1871	9.0000	7.0313
III		4.5500	29.8500		31.4500	19.3000		18.0000	7.4500		4.4000
IV		4.3600	32.7200		35.1600	7.3600		7.7600	12.8400		7.6000
$\bar{X}$	4.6333	4.1333	33.6000	33.6667	32.5810	15.1905	18.8667	14.4476	8.6000	8.2333	6.4857
SD	3.1888	3.0321	11.0372	10.9771	9.9439	10.2686	10.2154	10.7641	8.3420	7.6610	6.6044
F	1.765	.340	1.785	2.508	1.027	8.976	1.066	4.971	3.352	.683	.978
P	.1892	.7963	.1547	.1187	.3841	.0000	.3061	.0029	.0220	.4119	.4064

Table 1

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Males over three assessments (May 75, May 76 and May 77)

Group	Variable Name CCI May 75	CCI May 76	CCI May 77
I	7.8929	9.9286	9.3929
II	8.2813	6.9375	7.9375
III	8.000		7.7500
IV	7.7200		8.1200
$\bar{X}$	7.9905	8.3333	8.3333
SD	3.0016	3.2189	3.0213
F	.173	16.220	1.651
P	.9141	.0002	.1823

Table 2

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Females over three assessments (May 75, May 76 and May 77)

		Variable Name								
		STOT			GAI			GRM		
Group	N	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77
I	15	15.4667	17.6667	16.1333	6.4667	9.2000	8.9333	3.3333	2.7333	3.2000
II	27	13.3704	15.6296	14.5926	5.4444	6.1111	4.0370	2.8519	3.2963	2.3704
III	29	13.5172		13.8276	5.1379		6.3793	1.5862		2.1034
IV	45	14.6000		13.5778	4.5111		5.0444	2.1333		1.6889
$\bar{X}$	116	14.1552	16.3571	14.2069	5.1379	7.2143	5.6466	2.3190	3.0952	2.1466
SD		4.4946	3.0107	3.7637	7.8118	9.0730	7.4463	3.6322	4.4051	3.0567
F		1.043	4.827	1.970	.250	1.121	1.612	1.017	.154	.980
P		.3765	.0339	.1225	.8611	.2961	.1907	.3881	.6966	.4050

Table 2

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Females over three assessments (May 75, May 76 and May 77)

		Variable Name								
		GSC			GE			GR		
Group	N	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77
I	15	9.0667	8.6000	8.3333	6.2667	6.2667	8.2667	3.1333	2.6000	2.2000
II	27	7.1481	9.1111	7.2222	6.2963	5.7407	4.5926	3.3333	2.7407	2.4815
III	29	5.9310		7.8276	3.8276		4.6897	4.0690		3.1379
IV	45	6.9333		6.0000	5.7111		6.3111	2.8667		2.5556
$\overline{X}$	116	7.0086	8.9286	7.0431	5.4483	5.9286	5.7586	3.3103	2.6905	2.6379
SD		8.2224	10.2229	7.3205	7.2031	6.3183	9.1401	3.4171	3.7252	3.1743
F		.477	.024	.570	.693	.065	.705	.738	.013	.361
P		.6993	.8789	.6360	.5582	.7996	.5513	.5315	.9083	.7814

Table 2

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Females over three assessments (May 75, May 76 and May 77)

		Variable Name								
		GD			GTOT			REAL		
Group	N	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77
I	15	1.2000	1.8667	2.4000	25.1333	26.8000	28.7333	1.8667	2.6000	2.5333
II	27	2.4074	2.8889	2.9630	21.7407	24.2592	18.2222	3.7037	3.4074	3.2963
III	29	1.7241		1.6207	16.4828		21.0000	2.1724		2.7241
IV	45	1.9778		1.6222	19.2889		19.0444	4.0444		3.5778
$\overline{X}$	116	1.9138	2.5238	2.0345	19.9138	25.1667	20.5948	3.2155	3.1190	3.1638
SD		2.1971	3.3078	2.1827	24.5327	26.3466	23.4016	2.8217	2.0025	2.4099
F		1.069	.919	2.774	.468	.088	.761	4.383	1.590	1.138
P		.3654	.3434	.0447	.7049	.7687	.5182	.0059	.2146	.3370

Table 2

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Females over three assessments (May 75, May 76 and May 77)

		Variable Name								
		INT			SOC			VTOT		
Group	N	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77
I	15	2.9333	4.2667	4.2667	7.5333	8.2667	8.4000	33.8000	38.6667	36.4000
II	27	4.6296	4.9259	4.7778	6.7407	7.6296	8.0741	34.2963	37.5185	37.8515
III	29	2.8621		4.4828	6.7241		6.9655	33.3448		36.4828
IV	45	5.1333		5.0000	8.4444		7.7333	40.3778		38.1778
$\bar{X}$	116	4.1638	4.6905	4.7241	7.5000	7.8571	7.7069	36.3534	37.9286	37.4483
SD		2.6668	2.6456	2.5042	3.3479	3.1897	3.1124	11.3530	8.8439	9.2917
F		6.420	.593	.436	2.247	.379	.921	3.299	.159	.272
P		.0005	.4459	.7274	.0868	.5417	.4333	.0231	.6920	.8454

Table 2

Summary of Analysis of Variance for Selected BCCI Scale Scores,

Means and F Ratio's for Females over three assessments (May 75, May 76 and May 77)

		Variable Name								
		TR+			TR-			CCI		
Group	N	May 75	May 76	May 77	May 75	May 76	May 77	May 75	May 76	May 77
I	15	21.4667	25.9333	24.9333	3.4000	2.3333	2.2000	8.8667	10.4667	10.6000
II	27	16.9630	18.0000	23.0741	6.2963	5.8148	3.0000	7.7407	8.7037	9.6667
III	29	15.2069		14.6897	8.6552		3.3793	9.2759		9.4483
IV	45	14.1556		15.5111	9.2000		4.4889	8.1111		8.5556
$\overline{X}$	116	16.0172	20.8333	18.2845	7.6379	4.5715	3.5690	8.4138	9.3333	9.3017
SD		10.0158	10.4226	10.9994	7.6345	5.1140	4.3743	2.8317	2.6748	2.4574
F		2.142	6.310	6.280	2.737	4.893	1.335	1.736	4.552	3.183
P		.0989	.0161	.0006	.0469	.0327	.2666	.1636	.0391	.0267

Table 3

Analysis of Covariance Results (Main Effects) Over Two Program Years

By Gender and By Group for Selected

May 1977 BCCI Variables[1]

BCCI Scale	Gender		Group[2]					
Score	Male	Female	I	II	III	IV	F Ratio	P<
N	105	116	43	59	49	70		
GAI	2.81	5.34					11.326	.001
			5.90	3.34	4.57	3.44	2.458	.064
GEM[3]	5.18	2.78					20.455	.000
			3.70	4.11	5.19	3.00	3.618	.014
GSC	5.03	6.65					4.575	.034
REAL	5.33	3.47					23.611	.000
SOC	4.67	7.22					35.515	.000
VTOT	33.10	36.99					9.374	.002
TR+	14.32	18.39					11.524	.001
			17.75	18.95	15.02	15.57	3.285	.022
TR-	6.34	3.69					13.145	.000
CCI	8.24	9.38					9.734	.002
			10.01	8.84	8.57	8.31	3.768	.012

[1]The Covariate for each analysis was the appropriate May 1975 BCCI Scale Score (e.g., STOT May 75 covaried with May 1977).

[2]Groups were identified as follows: Group I, participated in pilot and two years of the affective education program, now at Holman; Group II, participated in program for 1976-1977 at Holman; Group III, participated only in the 12-week pilot program at Buerkle, now at Middle School; Group IV, did not participate in the affective education program, now at Middle School. Groups I and II are fifth graders; Groups III and IV are sixth graders.

[3]A significant gender x group interaction was found.

Table 4

Analyses of Covariance Results (Main Effects)

Over Two Program Years for Groups I and II

By Gender and By Group for Selected

May 1977 BCCI Variables[1]

BCCI Scale	Gender		Group			
Score	Male	Female	I	II	F Ratio	P
N	60	42	43	59		
GAI	3.36	5.11			3.564	.062
			5.50	3.05	7.775	.006
GRM	5.34	3.11			6.946	.010
REAL	5.34	3.47			9.371	.003
SOC	4.15	7.84			37.525	.000
VTOT	31.76	37.51			8.749	.004
TR+	16.51	23.10			13.079	.000
TR-	6.51	3.02			9.199	.003
CCI	8.57	10.08			7.391	.008
			9.89	8.68	4.776	.031

1. The Covariate for each analyses was the appropriate May 1975 BCCI Scale Score (eg., STOT May 1975 covaried with May 1977).

Table 5

Analyses of Covariance Results (Main Effects)

Over Two Program Years for Groups I and III

By Gender and By Group for Selected

May 1977 BCCI Variables[1]

BCCI Scale	Gender		Group			
Score	Male	Female	I	III	F Ratio	P
N	48	44	43	49		
STOT			15.82	14.02	4.791	.031
GAI	3.60	6.99			8.781	.004
GRM[2]	5.10	3.30			10.887	.001
			3.84	5.57	4.813	.031
REAL	4.77	3.48			3.920	.051
SOC	4.76	6.91			11.384	.001
VTOT	32.40	36.48			4.591	.035
TR-	5.41	3.13			5.107	.026
CCI	8.60	9.95			5.786	.018
			10.02	8.57	6.828	.011

1. The Covariate for each analyses was the appropriate May 1975 BCCI scale score.

2. A significant gender x group interaction was found.

Table 6

Analysis of Covariance Reaults (Main Effects)

Over Two Year Period for Groups I and IV

By Gender and By Group for Selected

May 1977 BCCI Variables[1]

BCCI Scale	Gender		Group			
Score	Male	Female	I	IV	F Ratio	P
N	53	60	43	70		
STOT			15.74	14.01	5.570	.020
GAI	2.70	5.75			6.220	.014
			5.91	3.34	4.379	.039
GRM	3.84	2.76			5.254	.007
			3.97	2.84	3.726	.056
GTOT			24.58	16.72	3.869	.052
REAL	6.17	3.59			22.929	.000
SOC	4.67	7.50			19.475	.000
TR+	12.54	17.84			8.560	.004
			17.96	13.75	4.418	.038
TR-	6.98	3.89			7.565	.007
CCI			9.89	8.36	4.382	.015

1. The Covariate for each analysis was the appropriate May 1975 BCCI Scale Score.

Table 7

Analyses of Covariance Results (Main Effects)

Over Two Program Years for Groups II and III

By Gender and By Group for Selected

May 1977 BCCI Variables[1]

BCCI Scale	Gender		Group			
Score	Male	Female	II	III	F Ratio	P
N	52	56	59	49		
GAI	3.30	4.71			4.688	.033
GRM	6.51	2.83			15.640	.000
GSC	5.13	7.06			4.674	.033
REAL	4.49	3.33			4.523	.036
SOC[2]	4.56	7.03			18.162	.000
VTOT	31.31	36.89			9.078	.003
TR+[2]	15.89	19.23			4.242	.042
			19.38	15.50	5.707	.019
TR-	5.86	3.36			7.320	.008
CCI	7.88	9.54			9.959	.002

1. The Covariate for each analyses was the appropriate May 1975 BCCI Scale Score (i.e., same scale).

2. A significant gender x group Interaction was found.

Table 8

Analyses of Covariance Results (Main Effects)

Over Two Program Years for Groups II and IV

By Gender and By Groups for Selected

May 1977 BCCI Variables[1]

BCCI Scale	Gender		Group			
Score	Male	Female	II	IV	F Ratio	P
N	57	72	59	70		
GAI	2.28	4.22			3.689	.057
GRM	4.52	2.39			9.829	.002
			4.00	2.76	3.726	.056
GSC	4.26	6.00			3.479	.065
GE_2						
REAL	5.67	3.57			19.283	.000
SOC	4.56	7.43			24.602	.000
VTOT	33.45	37.47			5.548	.020
TR+	12.42	18.06			12.420	.001
			18.39	15.20	10.408	.002
TR-	7.06	4.10			8.259	.005
CCI	7.95	9.02			4.952	.028

1. The Covariate for each analyses was the appropriate May 1975 BCCI Scale Score (i.e., same scale).

2. A significant gender x group interaction was found.

Table 9

Analyses of Covariance Results (Main Effects)

Over Two Program Years for Groups III and IV

By Gender and By Group for Selected

May 1977 BCCI Variables[1]

BCCI Scale	Gender		Group			
Score	Male	Female	III	IV	F Ratio	P
N	45	74	49	70		
GAI	2.25	5.35			7.227	.008
GRM_2	5.06	2.55			14.147	.000
			4.78	2.60	13.077	.000
GSC	4.52	6.40			3.768	.055
			6.80	4.81	3.981	.048
GD	3.03	1.73			8.271	.005
$REAL_2$	5.32	3.47			14.648	.000
			3.60	4.57	4.449	.037
SOC	5.48	6.80			4.659	.033
TR-	6.04	4.14			4.103	.045

1. The Covariate for each analyses was the appropriate May 1975 BCCI Scale Score (i.e., same scale).

2. A significant gender x group Interaction was obtained.

Table 10

Analysis of Covariance Results (Main Effects)

Over One Program Year By Gender and By Groups

By Selected May 1977 BCCI Variables[1]

BCCI Scale	Gender		Group[2]			
Score	Male	Female	I	II	F Ratio	P<
N	60	42	43	59		
GAI			3.60	4.72	6.496	.012
GRM	5.28	3.18			7.241	.008
REAL	5.05	3.88			5.370	.023
SOC	4.75	6.99			18.468	.000
TR+	16.30	23.40			10.612	.002
TR-	6.36	3.22			6.681	.011

1. The Covariate for each analysis was the appropriate May 1976 BCCI Scale Score (e.g., GAI May 1976 Covaried with GAI May 1977).

2. Groups were identified as follows: Group I, participated in pilot and two years of the affective education program, now at Holman; Group II, participated in program for 1976-1977 at Holman.

Table 11

Analysis of Covariance Results (Main Effects)

Over Full Pilot and Program Period By Gender and By Groups

By Selected May 1977 BCCI Variables[1]

BCCI Scale Score	Gender		Group[2]			
	Male	Female	I	III	F Ratio	P<
N	48	44	43	49		
GAI	3.69	6.89			8.389	.005
GRM[3]	5.90	3.52			9.135	.003
			3.92	5.50	4.768	.032
REAL	4.90	3.33			6.790	.011
SOC	5.12	6.52			3.994	.049
TR+[3]			19.65	16.01	3.202	.077
TR-	5.28	3.27			3.851	.053
CCI	8.45	9.94	9.91	8.67	7.125	.009

1. The Covariate for each analysis was the appropriate February 1975 BCCI Scale Score (e.g., GRM February, 1975 covaried with GRM May 1977).

2. Groups were identified as follows: GroupI, participated in pilot and two years of the affective education program, now at Holman; Group III, participated only in the 12-week pilot program at Buerkle, now at Middle School.

3. A significant gender x group interaction was found.

Table 12

Direction of Differences in Selected

BCCI Measures By Gender and By Group

BCCI Scale Score	Gender		Groups			
	Males	Females	I	II	III	IV
STOT			I > III			
GAI	M < F		I > II > IV; III > IV; II > I*			
GRM	M > F		I > IV; II > IV; III > IV; III > I			
GSC	M < F		III > IV			
GD	M > F					
GTOT			I > IV			
REAL	M > F		IV > III			
SOC	M < F					
VTOT	M < F					
TR+	M < F		I > IV; II > III;			
TR-	M > F					
CCI	M < F		I > II; I > III; I > IV			

* Direction of Difference over May 1976 to May 1977 period